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CLAIMS

1. A sealing material for a semiconductor device, which is a sealing material comprising a fluororubber as a rubber component, wherein: the fluororubber inevitably comprises a cured product of a vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer; and copolymerization ratios of respective monomers in the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer are such that: a content of vinylidene fluoride is in the range of from 25 to 70 mol %; a content of hexafluoropropylene is in the range of from 15 to 60 mol %; a content of tetrafluoroethylene is in the range of from 15 to 60 mol %; and a fluorine content in the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer is in the range of from 71.5 to 75 mass %.

2. The sealing material for a semiconductor device according to claim 1, wherein curing of the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer is performed by irradiation with ionizing radiation.

3. The sealing material for a semiconductor device according to claim 1 or 2, wherein a fluorine content of the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer is in the range of from 72 to 74.5 mass %.

4. The sealing material for a semiconductor device according to claim 2, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

5. A sealing material for a semiconductor device, which is obtained by crosslinking, with ionizing radiation, a fluororubber preform comprising: i) a fluororubber component (a) comprising a vinylidene fluoride/hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer; and ii) a non-elastic fluoro resin component (b) comprising a vinylidene

fluoride (co)polymer in composition of the fluororesin component (b) of 1 to 50 parts by mass relative to 100 parts by mass of the fluororubber component (a).

6. The sealing material for a semiconductor device according to claim 5, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/hexafluoropropylene elastic copolymer is vinylidene fluoride/hexafluoropropylene = (50 to 95)/(5 to 50)(in mol %).

7. The sealing material for a semiconductor device according to claim 5 or 6, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer is vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene = (20 to 80)/(10 to 70)/(10 to 70)(in mol %).

8. The sealing material for a semiconductor device according to claim 5 or 6, wherein a fluorine content of the fluororubber component (a) is in the range of from 65 to 75 mass %.

9. The sealing material for a semiconductor device according to claim 5 or 6, wherein a ratio of the fluororubber component (a) and the fluororesin component (b) is 5 to 20 parts by mass of the fluororesin component (b) relative to 100 parts by mass of the fluororubber component (a).

10. The sealing material for a semiconductor device according to claim 5 or 6, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

11. A manufacturing method for a sealing material for a semiconductor device, comprising the steps of: i) mixing a fluororubber component (a) with a non-elastic fluororesin component (b) to obtain a mixture, wherein the fluororubber component (a) comprises a vinylidene fluoride/hexafluoropropylene elastic copolymer and/or a

vinylidene fluoride/hexafluoropropylene/tetrafluoroethylene elastic copolymer, wherein the non-elastic fluororesin component (b) comprises a vinylidene fluoride (co)polymer, wherein 100 parts by mass of the fluororubber component (a) is mixed with 1 to 50 parts by mass of the non-elastic fluororesin component (b) at a temperature of a melting point of the fluororesin component (b) or higher; ii) preforming the mixture to obtain a preform; and iii) irradiating the preform with ionizing radiation.